



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/711,567	11/13/2000	Edward F. Tokas	031221-058	8260

21839 7590 09/09/2003

BURNS DOANE SWECKER & MATHIS L L P  
POST OFFICE BOX 1404  
ALEXANDRIA, VA 22313-1404

[REDACTED] EXAMINER

KNABLE, GEOFFREY L

ART UNIT	PAPER NUMBER
	1733

DATE MAILED: 09/09/2003

15

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	09/711,567	TOKAS ET AL.
	Examiner Geoffrey L. Knable	Art Unit 1733

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on 26 June 2003.

2a) This action is **FINAL**.                    2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 84-92 and 99-102 is/are pending in the application.

4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5) Claim(s) 90-92 is/are allowed.

6) Claim(s) 84-89 and 99-102 is/are rejected.

7) Claim(s) \_\_\_\_\_ is/are objected to.

8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) The proposed drawing correction filed on \_\_\_\_\_ is: a) approved b) disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12) The oath or declaration is objected to by the Examiner.

#### Priority under 35 U.S.C. §§ 119 and 120

13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some \* c) None of:

1. Certified copies of the priority documents have been received.

2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.

3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) The translation of the foreign language provisional application has been received.

15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

#### Attachment(s)

1) Notice of References Cited (PTO-892)

2) Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_

4) Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_

5) Notice of Informal Patent Application (PTO-152)

6) Other: \_\_\_\_\_

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on June 26, 2003 has been entered.

2. Claims 84-89 and 99-102 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 84, line 2 has been amended to include reference to an "adhesive" between substrate surfaces. The claim however does not refer to an adhesive anywhere else in the body of the claim, this raising the potential for confusion in determining whether or how the referenced "methathesizable material" relates to the newly claimed "adhesive". If they are the same, it would be clearer if this were acknowledged at some point in the claim to avoid confusion.

Claim 85 has been amended to define that the catalyst is applied "prior to polymerization". This is confusing, and raises potential issues of lack of description/new matter to be addressed below, as it is not clear what exactly is contemplated in terms of the timing of the catalyst application. In particular, the original disclosure does not seem to explicitly describe the application of the catalyst with respect to the "polymerization" but rather simply as being applied or part of the substrate prior to application of the metathesizable polymer. This new description that is unsupported by any clear

description in the original disclosure, renders the scope of the claim indefinite and confusing. For example, if the catalyst is applied with a dual nozzle along with but separate from the metathesis polymer to a substrate, is this within the scope of the claim? In other words, the original disclosure seems principally directed to preapplication or preinclusion of a catalyst at the substrate surface and there is significant confusion in trying to determine if this new language is limited or consistent with this or is intended to be broader (and thereby also unsupported). New claim 99 includes this same language and thus is indefinite for these same reasons.

3. Claims 85-89 and 99-102 rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

As noted above, claim 85 has been amended to define that the catalyst is applied "prior to polymerization". The original disclosure does not seem to explicitly describe the application of the catalyst with respect to the "polymerization" but rather simply as being applied or part of the substrate prior to application of the metathesizable polymer. This new description is thus not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention, i.e. it is considered to be new matter. New claim 99 includes this same language and thus lacks original description/is new matter for these same reasons.

Art Unit: 1733

4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

5. Claims 84, 85, 87-89 and 99-102 are rejected under 35 U.S.C. 102(b) as being anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Suzuki et al. (US 5,137,785).

This reference is applied for the same reasons as set forth in the last office action. New claims 99-102 essentially track existing claims 85+ and are rejected for the same reasons as set forth against claims 85+, it being again stressed that the claims are directed to the final product and it has not been shown that the particular conditions used or even the relative locations of the catalyst produce a materially different product. In other words, it would seem that as long as the catalyst catalyses the reaction, it would not produce a different product even if catalyst is not fully on one surface. In any event, it should also be stressed that referring to selected areas on the substrate surface does not reasonably exclude full catalyst coverage or importantly, it is not clear that it would produce a materially different product than catalyst applied with the polymer.

6. Claims 84-89 and 99-102 are rejected under 35 U.S.C. 103(a) as being unpatentable over the admitted state of the prior art taken with Mühlebach et al. (US 5,973,085), Ofstead (US 3,935,179) and Suzuki et al. (US 5,137,785), and optionally further in view of Lesser (US 2,978,354).

The specification read as a whole would have clearly indicated to the artisan that the general as well as more specific claimed metathesis polymer system, i.e. metathesis

polymers and their catalysts, are well known and conventional in this art – note throughout the specification and particularly the clear reference to the catalysts being “known” and “well known” metathesis catalysts as well as the specific reference to various journal articles in support thereof. It thus is considered admitted that the catalyzed metathesis polymer system itself is known *per se*. The inventive separate application/provision of the catalyst at one substrate surface is however of course not admitted to be known and would seem to represent the main inventive contribution from a reading of the specification as a whole.

The present claims are however not directed to a method of bonding two substrates but rather a final manufactured article with a metathesis catalyst and it is not clear that separate catalyst application (to the extent that this is even required by the new language – note the 112 rejections above) would provide a materially different product. As noted in the last office action, Mühlebach et al. and Ofstead provide evidence that it is understood in this art that a wide variety of metathesis polymers have known utility in a variety of roles including as adhesives. Suzuki would further provide evidence that it is known and expected that metathesis polymers can effectively bond to elastomer materials. In light of the known application of metathesis polymers as adhesives in general with apparently broad applicability as well as the known fact that these polymers bond effectively to various materials including elastomer and metals, it would have been *prima facie* obvious to utilize any of the known catalyzed metathesis polymer systems, including the conventional systems disclosed/claimed, anywhere an adhesive between materials is needed including in particular when metal and/or

elastomer materials are to be bonded for only the expected results. While the secondary references may relate to slightly different catalysts systems that may in some cases need activation, these references are still considered to establish an understanding and an expectation that metathesis polymers in general would be expected to suitably act as adhesives. Insofar as there is no indication that applicant's catalyst systems (e.g. ambient curing) are in any way new or unknown, it is not considered unobvious to utilize known metathesis polymers/catalysts for one of their known uses, it being stressed that the present claims are very broadly directed to a bonded article using a very broadly defined "metathesis polymer".

Although it is not believed that the manner of introduction of the catalyst leads to a materially different product, even if it were considered that it did (and that the claims even require it), it is submitted that it would have been an obvious alternative to first apply the catalyst to the substrate surface rather than mixed with the polymer as it is well known in the formation of catalyzed polymer layers to either apply the catalyst with (or at the same time as) the polymer or to alternatively apply the catalyst initially to the surface in order to avoid problems of reduced pot life, etc. – Lesser is exemplary.

7. Claim 84, 85, 87-89 and 99-102 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki et al. (US 5,137,785) as applied above, and further in view of Lesser (US 2,978,354) as applied in the last office action.

Again, although it is not believed that the manner of introduction of the catalyst leads to a materially different product, even if it were considered that it did (and that the claims even require it), it is submitted that it would have been an obvious alternative to

first apply the catalyst to the substrate surface rather than mixed with the polymer as it is well known in the formation of catalyzed polymer layers to either apply the catalyst with (or at the same time as) the polymer or to alternatively apply the catalyst initially to the surface in order to avoid problems of reduced pot life, etc. – Lesser is exemplary.

8. Claims 90-92 are allowed.

Although the closest prior art (e.g. note the statements of rejection above) is considered to establish an understanding that metathesis polymers have a known general utility as adhesives and further may also in some cases (e.g. Suzuki et al.) be known to bond to some elastomers, it is not considered that the prior art taken either singly or in combination, would reasonably teach or render obvious use of a metathesis polymer as an adhesive layer in the very specialized bonding required between a tire carcass and a bonding surface of a tread and thus would not teach or render obvious a tire laminate as claimed. It is noted that Ofstead (US 3,935,179 – col. 2, lines 21-26) mentions that the metathesis polymers may be used "to produce finished rubber articles such as pneumatic tires, molded goods and the like." This very general disclosure however is likewise not considered to in any way suggest to the artisan any utility or reasonable expectation of success as an adhesive to bond a tire carcass and a bonding surface of a tread and thus also would not teach or render obvious a tire laminate as claimed.

9. Applicant's arguments filed June 26, 2003 have been fully considered but they are not persuasive.

Applicant has again argued that Suzuki does not suggest an adhesive. In particular, it is urged that “[u]nlike a typical adhesive layer, the substrate of Suzuki et al. makes up half of the thickness of the composite material which is 4 mm thick with the polymer sheets 1 mm thick.” This argument has been considered but is unpersuasive. Although applicant has concluded that this is not a thickness of a “typical” adhesive, this argument lacks any reasonable foundation or factual basis (and there is no claim language providing such a limitation), it not being agreed that an adhesive cannot for example be 2 mm in thickness regardless of what is “typical”. It is also urged that the sheets encase the substrate through a RIM process to produce a molded article. It however has not been shown or explained why this is a materially different product. Again, the present claims define a laminate of three layers – two substrates with an interposed polymerized metathesis polymer bonding to the two substrates – this is however still considered to be exactly what is taught by the reference. While the reference did not refer to the metathesis polymerized material as an “adhesive”, it is considered to clearly be functioning in this role.

It is also urged that the “polymerizate formed in this manner is distinctly different in that better adhesion occurs as compared to joining of the substrates upon the mixing of monomer and catalyst, as in Suzuki et al.” No evidence or convincing line of reasoning however has been provided to support this argument, it being therefore unconvincing. Note also the optional secondary reference applied to show the known separate application of a catalyst if desired.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Geoffrey L. Knable whose telephone number is 703-308-2062. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael W. Ball can be reached on 703-308-2058. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0651.



Geoffrey L. Knable  
Primary Examiner  
Art Unit 1733

G. Knable  
September 6, 2003